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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/501,297	07/12/2004	Gerd Hinzmann	HWKP 2 00008US	8138

27885 7590 09/18/2006

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EXAMINER
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NGUYEN, THUKHANH T

ART UNIT	PAPER NUMBER
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1722

DATE MAILED: 09/18/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/501,297	HINZMANN, GERD	
	<b>Examiner</b>	<b>Art Unit</b>	
	Thu Khanh T. Nguyen	1722	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 20 July 2006.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-29 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-29 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>5/31/05</u> .   | 6) <input type="checkbox"/> Other: _____                          |

## DETAILED ACTION

### *Specification*

1. The Applicant is suggested to amend the "Cross Reference to Related Application" section in the specification to includes the information of the PCT application.

### *Claim Rejections - 35 USC § 102*

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-8, and 13- 18 are rejected under 35 U.S.C. 102(b) as being anticipated by Asai (4,971,548).

In regard to claims 1 and 13, Asai teaches a molding apparatus, comprising a base (20), a cylindrical block (18) disposed on the base (20), a first and second pistons, or a punch and an ejector sleeve (64, 66) located within the cylindrical block (18) and wherein the punch (66) is located inside the ejector sleeve (64), and a first and second energy supply means such as a hydraulic cylinder (84) and the spring (76) connecting to an for actuating the punch and the ejector sleeve (col. 3, line 57 to col. 6, lines 12), wherein the energy supply means move the punch independently from the movement of the ejector sleeve (col. 5, lines 12-24); and thus, the apparatus is capable of moving the punch in a different direction. In another word, the Asai is capable of moving the punch and the sleeve (or the first and second pistons) independently and in different directions of each other.

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In regard to claims 2-4, Asai further discloses that the first and second supply means further include first and second channels, or hole (not shown in the drawing) that connected to the piston rod (86) and exceedingly fixed to the base plate (Fig. 1, 20; col. 4, lines 7-12).

In regard to claim 5, wherein the supply means (76, 84) are provided concentrically through a center hole of the cylindrical block or the plates (50-58; col. 3, line 45 to col. 4, lines 12).

In regard to claim 6, the apparatus further comprises a third piston, or an ejector pin plate (68) disposed within the center hole (of the block 50-58) and a third supply means or an ejector pin plate (72) for actuating the ejector pin plate independently from the punch (66) and the sleeve (64).

In regard to claims 7-8, and 14-18, wherein the first and second piston, or the punch (66) and the sleeve (64) are concentric, and that the punch is located within the ejector sleeve on about the same level and centrally located within the cylindrical block, or the plates (54, 56), and the third piston (68) is disposed on a different level from the first and second piston (64, 66).

### ***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 9 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Asai ('548) in view of Fujikawa (6,468,449).

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Asai fails to disclose a linear encoder.

Fujikawa discloses a molding apparatus comprising a mold platen (4) movable by a servo motor (11), wherein the movement of the mold platen can be directly detected by a linear encoder (col. 6, lines 1-4).

It would have been obvious to one of ordinary skill in the art at the time the applicant's invention was made to modify Asai by providing a linear encoder associated with a molding punch or to a molding plate as taught by Fujikawa in order to monitor the position of the punch or the molding plate during the molding process so that appropriate pressure can be applied to the punch or appropriate action can be taken by the operator.

6. Claims 10-12 and 20-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Asai ('548) as applied to claims 1-8 and 13-18 above, and further in view of Hirata et al (5,320,517).

Asai discloses a molding apparatus having movable platens for moving the punch and the ejector plate as described above, and further comprises a stopper flange (40) for controlling the movement of the upper die block (30).

However, Asai fails to disclose a mechanical adjustable stopper for the piston.

Hirata et al disclose a molding apparatus, comprising a mold platen (303) movable by the piston (304), a mold thickness adjustment device (312) including a thread pipe (314), a stopper (316) connected to and movable back and forth within a threaded inner wall of the thread pipe (314; col. 15, lines 18-28).

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It would have been obvious to one of ordinary skill in the art at the time the applicant's invention was made to modify Asai by providing an adjustable stopper (claims 10-11 & 20-21) that is threadedly movable inside an outer pipe/ring member (claims 12 & 22) as taught by Hirata et al because the adjustable thread stopper would control the movement of the movement of the movable mold platen/punch more precisely and thus the thickness of the molding product can accurately be controlled.

7. Claims 23-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Asai ('548) as applied to claims 1-8 and 13-18 above, and further in view of a second Asai reference (2,772,196).

Asai ('548) discloses a molding apparatus having movable punches as described above, but fails to disclose a frame attached to the base.

Asai ('196) disclose a molding apparatus, comprising base plates (23-24) and a cylindrical blocks (25-28) disposed on the base, a punch (50) and an ejector pin (51) located within the cylindrical blocks, and a frame (1, 2) for supporting the base plates.

It would have been obvious to one of ordinary skill in the art at the time the applicant's invention was made to modify Asai ('548) by providing a frame connecting to the base plates as taught by Asai ('196) in order to support and mount the base plates, the cylindrical blocks, the punch and the ejector pin together.

In regard to claim 24, Asai ('548) discloses that the first and second piston, or the punch (66) and the sleeve (64) are concentric located within each other on about the same level and centrally located within the cylindrical block (col. 3, lines 59-62).

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In regard to claims 25-26, it would have been obvious to one of ordinary skill in the art at the time the applicant's invention was made to modify Asai ('548) by providing a frame that is integrally connected (Asai'196, #1) or is movably connected (Asai'196, #2) to the molding blocks as taught by the second Asai reference ('196) because the integrally connected frame would secure the molding blocks on one hand and on the other hand, the movably connected frame would provide the flexibility of removing/arranging different molding parts within the apparatus.

In regard to claim 27-29, it would have been obvious to one of ordinary skill in the art at the time the applicant's invention was made to modify Asai ('548) in view of Asai ('196) by providing an electric controls, such as a timer connecting to a switch that control the movement of the punch (col. 3, lines 30-46) or providing a hydraulic or pneumatic control valve (c; col. 5, lines 57-col. 6, lines 4) depending on the fluid being used to activate the punch, because the control system including the timer and the control valves would enable the position and the pressure of the punch to be accurately controlled during the molding process.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thu Khanh T. Nguyen whose telephone number is 571-272-1136. The examiner can normally be reached on Monday- Friday, 6:30-4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gupta Yogendra can be reached on 571-272-1316. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

A handwritten signature in black ink, consisting of a stylized 'N' or 'W' shape with a horizontal line extending to the right.

TN

09/11/06